

26p.

Astronomical Contributions
of Boston University

Series II Number 26

RESEARCH REPORT NO. 8, November 1963, NASA GRANT G246-62

N 64 14276

PRICE

\$ 2.60 ph.
MICROFILM \$ 0.98 mf.

t: CATALOG OF LUNAR CRATERS III

by

CODE - 1
CR-55295

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UNPUBLISHED PRELIMINARY DATA

Introduction

This catalog gives the selenographic coordinates of all craters observable on a selected portion of the moon's surface. The diameter of the crater together with comments on shape are also given. Approximately 15 per cent of the craters have been measured previously by other observers. The catalog gives the position found in the present series of measurements and the name adopted by the International Astronomical Union.

Boundaries of Section

The section studied here was a strip on sheet C 7-a of the 'Photographic Lunar Atlas', (Kuiper, 1960). The east and west borders of the area followed the lines defined by the equations:

$$h = -7.5. \xi + 0.05 \quad (1)$$

$$h = -7.57 \xi + 1.45 \quad (2)$$

The north and south boundaries were taken as the edges of the photograph.

Selection criteria

(1.) A crater must have at least half of its wall clearly visible.

(2.) When foreshortening has been allowed for, a crater must be approximately circular. If elliptical, its eccentricity must not be greater than 0.75, i.e. the ratio of major to minor axes must not exceed 1.5. A crater may be polygonal, but its longest diameter must not exceed 1.5 times its shortest diameter.

(3.) A distinct shadow must be visible on some photograph of the crater, and the shadow must be properly oriented with respect to the sun.

The only types of craters which are likely to be missing in significant numbers are (a) those which are very small (less than 3 km in diameter) and (b) those which are very shallow and far from the terminator.

The photograph of the area to be surveyed was oriented with south at the top. For convenience, an x and y axes were chosen parallel to the edges of the photograph, the origin was set at the lower left corner, and the x-y coordinate grid established in inches. The method used to calculate the plate constants is that described by Belsky (1962). Crater coordinates were used as inputs to the Belsky program, with values of ξ , η obtained from D. W. G. Arthur (1962.) This procedure avoids the errors contained in the coordinate grid of the Arthur and Whitaker (1960) atlas. (See Friesen

(1963)).

In the catalog the first two lines (01, 02) on the first page, under "Calculation of Plate Constants", give the constants A_1 to F_1 in the equation

$$\xi = A_1 x^2 + B_1 xy + C_1 y^2 + D_1 x + E_1 y + F_1 \quad (3)$$

The second two lines (03, 04) give the constants in the equation

$$\eta = A_2 x^2 + B_2 xy + C_2 y^2 + D_2 x + E_2 y + F_2 \quad (4)$$

The constants are given in Fortran floating point format. For example, $A = -.11039169E - 04$ should be interpreted as

$$A = -0.11039169 \times 10^{-4} .$$

Line 05 on the first page gives the scale factor F , which was calculated in the following manner. Several pairs of craters, whose coordinates (ξ , η , x , y) are known, were chosen such that for each pair the line joining the craters is very nearly parallel to the limb of the moon. The distance between the craters on the photograph, in inches, was measured either directly or by using the equation:

$$d = \sqrt{(x_1 - x_2)^2 + (y_1 - y_2)^2} \quad (5)$$

The same distance was measured in units of the Moon's

radius as follows:

$$D = \sqrt{(\xi_1 - \xi_2)^2 + (\eta_1 - \eta_2)^2 + (\zeta_1 - \zeta_2)^2} \quad (6)$$

where $\zeta = \sqrt{1 - \xi^2 - \eta^2}$. For two craters on a line nearly parallel to the limb $(\zeta_1 - \zeta_2)^2$ is negligible. Then the scale factor F is given, in kilometers per inch on the photograph, by:

$$F = \frac{R D}{d} \quad (7)$$

where R is the lunar radius in km. Values for F are computed for as many pairs of craters as can conveniently be chosen; the average value thus obtained, with its estimated error, is quoted in line 05.

Residuals and errors

The residuals from the determination of plate constants gave an rms. value less than ± 0.0003 for ξ and η , corresponding to an uncertainty in position on the surface of ± 0.5 km. Although undetected systematic errors almost certainly exist, the positions given are probably reliable to ± 1.0 km. The error in determining the diameter of the craters depends to a great extent on the individual crater. The error is estimated as ± 30 per cent for small craters, decreasing to ± 10 per cent for the largest crater.

The catalog gives the position of the geometrical center of the rim. If the rim is raised above the mean level of the moon then the measured center is displaced towards the limb of the moon. This displacement is in general less than 1 km and is negligible compared to the uncertainty of defining the rim for a large crater.

The remainder of the pages under the heading "Calculation of Plate Constants" give the coordinates of the craters used for the calculation (Belsky 1962).

Explanation of Columns in the Catalog

The first column (CRATER) gives the designation of craters. Named craters follow the IAU system (Blagg and Müller 1932).

Columns 2 and 3 (XSI and ETA) give the computed orthographic coordinates of each crater. These values are reliable to three places of decimal.

Columns 4 and 5 (X and Y) give the coordinates of each crater, in inches, as measured on the photograph.

Column 6 (DIAM) gives the diameter of each crater in kilometers. The diameter of each crater was measured in inches on the photograph, and the scale factor described above was used to convert to kilometers. Diameters are peak-to-peak and parallel to the limb, except for elliptical craters for which the foreshortening was removed and the longest diameter taken. The smallest craters included in the

catalog are approximately one kilometer in diameter, corresponding to 0.03 inches on the photographs.

Column 7 (Q) provides an index to how well each crater fulfills our criteria for crater selection. A crater of quality "C" barely meets the minimum requirements for inclusion in the catalog. It may have just half of its wall visible, or be very elliptical, or show a shadow on only one photograph, or be so small as to be barely visible. Craters of quality "B" may have a small part of the wall missing or be somewhat elliptical or polygonal. Craters of quality "A" show distinct, properly oriented shadows on at least two photographs taken under opposing illuminations, have complete or nearly complete walls, and are not strongly elliptical or polygonal.

Column 8 (P) denotes how perfect a polygon each crater is. Craters for which there is no entry in this column are circular or nearly so. "A" craters are well-defined, quite regular, complete polygons. A "B" crater is less regular and the "A" polygons, may have sides of drastically unequal length, or may have one or more sides missing. A "C" crater is not a well-defined polygon; it may be a circular crater with irregular walls, or if it is a true polygon the number of its sides cannot be ascertained. In this column, the letter (A, B, or C) is followed by a digit giving the number of sides in the polygon. For example, "A6" denotes a well-defined, hexagonal crater. A "B4" crater may be a square

with one side missing, or a trapezoidal formation, etc.

Column 9 (RMKS) contains a series of numbered asterisks referring the reader to additional remarks or information given on a separate page at the end of the catalog.

Column 10 (REG) gives the number of the photograph on which each crater was measured.

References

Belsky, L., 1962. The Transformation between Cartesian and Conic Coordinates. Lunar Project, Report 1, August 1962, Boston University, NASA G246-62.

Blagg, Mary A., and Müller, K., 1932. Named Lunar Craters, Commission 17, International Astronomical Union, Percy Lund and Humphries, London.

Kuiper, G. P., 1960. Photographic Lunar Atlas, Univ. Chicago Press.

Arthur, D. W. G., and E. A. Whitaker, 1960. Orthographic Atlas of the Moon (ed. by G. P. Kuiper), University of Arizona Press.

Friesen, D. D., 1963. The Choice of Fiducial Points in Determining Plate Constants for Lunar Photographs. Lunar Project, Report 9, November 1963, Boston University, NASA G246-62.

Arthur, D. W. G. (1962). Consolidated Catalog of Selenographic Positions. Comm. of the Lunar and Planetary Laboratory V.1, No. 11, University of Arizona.

BOSTON UNIVERSITY CATALOG OF LUNAR CRATERS

AREA C7

CALCULATION OF PLATE CONSTANTS -

A= .47667576E-05	B=-.20229076E-05	C= .41511497E-05	01
D=-.20626934E-01	E= .13027632E-02	F= .33597151E-00	02
A= .17206983E-04	B=-.92444790E-05	C= .34548537E-04	03
D=-.15561656E-02	E=-.19454695E-01	F=-.49580808E-00	04
F = 35.80 +- .20 KM/IN			05

X	Y	XSI	XSI(C)	DELTA	ETA	ETA(C)	DELTA
06.0400	11.3900	00.2270	00.2267	00.0002	-00.7223	-00.7223	00.0000
06.9300	14.1800	00.2124	00.2123	00.0000	-00.7754	-00.7755	00.0001
06.8400	12.9800	00.2127	00.2125	00.0001	-00.7533	-00.7531	-00.0001
03.7100	05.3900	00.2667	00.2666	00.0000	-00.6055	-00.6053	-00.0001
04.2400	08.7800	00.2603	00.2602	00.0000	-00.6702	-00.6705	00.0003
07.4900	15.0200	00.2023	00.2020	00.0002	-00.7920	-00.7919	-00.0000
06.3600	01.4700	00.2068	00.2068	-00.0000	-00.5336	-00.5336	00.0000
05.4800	10.7100	00.2374	00.2373	00.0000	-00.7089	+00.7087	-00.0001
06.1800	11.8200	00.2242	00.2245	-00.0003	-00.7304	-00.7305	00.0001
06.0200	01.3000	00.2137	00.2136	00.0000	-00.5299	-00.5298	-00.0000
06.2500	03.7200	00.2124	00.2120	00.0003	-00.5769	-00.5769	00.0000
05.5400	02.0900	00.2249	00.2245	00.0003	-00.5445	-00.5445	00.0000
04.3900	01.0400	00.2467	00.2468	-00.0001	-00.5226	-00.5225	-00.0000
06.3800	05.1000	00.2108	00.2112	-00.0004	-00.6037	-00.6036	-00.0000
06.5200	07.7700	00.2118	00.2119	-00.0001	-00.6547	-00.6547	00.0000
06.2900	08.5800	00.2179	00.2177	00.0001	-00.6696	+00.6697	-00.0001
05.4700	05.7000	00.2309	00.2307	00.0001	-00.6139	-00.6138	-00.0000
04.6900	09.6000	00.2519	00.2521	-00.0002	-00.6870	-00.6867	-00.0002
11.5000	11.6000	00.1147	00.1147	-00.0000	-00.7335	-00.7336	-00.0001
10.9400	14.3400	00.1298	00.1301	-00.0003	-00.7844	-00.7840	-00.0003
10.2900	10.6900	00.1385	00.1384	00.0000	-00.7152	-00.7150	-00.0001
10.3900	11.6900	00.1376	00.1377	-00.0001	-00.7337	-00.7339	00.0002
10.4600	13.1200	00.1386	00.1382	00.0003	-00.7610	-00.7607	-00.0002
10.2600	14.0100	00.1434	00.1436	-00.0002	-00.7771	-00.7770	-00.0000
09.4500	13.7100	00.1596	00.1598	-00.0002	-00.7702	-00.7704	00.0002
07.4100	10.1700	00.1969	00.1969	-00.0000	-00.7017	-00.7013	-00.0003
07.5700	12.9900	00.1975	00.1975	-00.0000	-00.7545	-00.7543	-00.0001
12.3700	15.3300	00.1023	00.1021	00.0001	-00.8044	-00.8042	-00.0001
11.8300	15.2500	00.1128	00.1130	-00.0002	-00.8019	-00.8021	00.0002
11.0500	15.6500	00.1298	00.1296	00.0001	-00.8085	-00.8085	00.0000
11.5400	03.1200	00.1024	00.1026	-00.0002	-00.5722	-00.5721	-00.0000
10.2000	03.2900	00.1306	00.1303	00.0002	-00.5737	-00.5738	00.0001
07.8200	02.8700	00.1784	00.1786	-00.0002	-00.5626	-00.5626	-00.0000
11.6300	04.6700	00.1028	00.1027	00.0000	-00.6022	-00.6021	-00.0000
10.5600	06.9500	00.1281	00.1277	00.0003	-00.6446	-00.6445	-00.0000
12.0100	12.7200	00.1061	00.1058	00.0002	-00.7552	-00.7553	-00.0001
12.2900	05.5800	00.0904	00.0904	-00.0000	-00.6205	-00.6204	-00.0000

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X	Y	XSI	XSI(C)	DELTA	ETA	ETA(C)	DELTA
12.5300	02.9200	00.0820	00.0820	-00.0000	-00.5695	-00.5694	-00.0000
XSI RMS.=		.20743937E-03		ETA RMS.=		.15675986E-03	

CRATER	XSI	ETA	XINS	YINS	DIAM	Q	P	RMKS	REG
GEMMA FRISIUS P	.1362	-.5294	09.77	01.03	005.0	B			C7A
GOODACRE B	.1884	-.5262	07.23	01.03	007.2	C		*1	C7A
	.2007	-.5283	06.64	01.18	010.0	A			C7A
	.2082	-.5259	06.27	01.08	003.9	C			C7A
	.2136	-.5298	06.02	01.30	004.7	B			C7A
	.2241	-.5287	05.51	01.28	003.6	B			C7A
	.2266	-.5262	05.38	01.16	006.8	C		*1	C7A
	.2307	-.5289	05.19	01.31	007.2	B			C7A
PONTANUS S	.2468	-.5225	04.39	01.04	006.8	A			C7A
	.2512	-.5236	04.18	01.11	004.3	B			C7A
WALTER G	.0569	-.5392	13.65	01.30	005.7	B			C7A
	.0837	-.5334	12.33	01.08	002.9	B			C7A
	.0875	-.5379	12.16	01.32	002.9	A			C7A
	.1060	-.5374	11.26	01.35	004.3	A			C7A
	.1092	-.5398	11.11	01.48	004.3	B			C7A
	.1152	-.5305	10.79	01.02	013.6	C	B4		C7A
POISSON L	.1202	-.5395	10.58	01.50	016.8	A			C7A
	.1260	-.5320	10.27	01.13	020.0	C	B4		C7A
	.1434	-.5300	09.42	01.08	016.5	C	B4		C7A
	.1483	-.5383	09.21	01.52	026.1	B	C		C7A
	.1554	-.5304	08.84	01.14	017.9	C			C7A
	.1669	-.5357	08.30	01.45	009.0	B			C7A
	.1677	-.5322	08.25	01.27	005.0	C			C7A
GEMMA FRISIUS H	.1791	-.5358	07.71	01.49	031.1	B	B6	*2	C7A
GEMMA FRISIUS O	.1879	-.5383	07.29	01.65	005.4	B		*1	C7A
	.1894	-.5349	07.21	01.48	005.0	B		*1	C7A
GOODACRE	.1976	-.5309	06.80	01.30	004.7	B			C7A
GOODACRE C	.2052	-.5399	06.46	01.79	048.0	A		*2	C7A
	.2068	-.5336	06.36	01.47	006.4	B			C7A
ZAGUT P	.2247	-.5375	05.51	01.73	005.0	B			C7A
	.2523	-.5363	04.17	01.77	014.3	A			C7A
	.2556	-.5309	03.99	01.50	040.1	A			C7A
ALIACENSIS G	.0685	-.5497	13.12	01.87	008.6	A			C7A
	.0741	-.5400	12.82	01.39	006.1	B			C7A
	.0773	-.5457	12.68	01.69	003.9	C			C7A
	.0882	-.5451	12.15	01.69	006.4	A			C7A
	.0920	-.5494	11.98	01.92	015.0	B			C7A
	.0957	-.5429	11.78	01.60	007.2	C	B4		C7A
ALIACENSIS D	.0998	-.5468	11.59	01.81	009.7	A			C7A
POISSON H	.1080	-.5459	11.19	01.79	022.6	B	B4		C7A
POISSON C	.1263	-.5456	10.30	01.83	025.1	B	B4		C7A
	.1269	-.5413	10.26	01.61	004.7	A			C7A
	.1336	-.5469	09.95	01.92	004.3	A			C7A
	.1393	-.5487	09.68	02.03	005.7	B			C7A
POISSON K	.1394	-.5404	09.65	01.60	015.8	A			C7A
	.1613	-.5470	08.61	02.01	057.3	C	B4	*5,7	C7A
GEMMA FRISIUS G	.1670	-.5494	08.34	02.15	038.7	B			C7A
	.1908	-.5471	07.18	02.11	004.7	C			C7A
	.2015	-.5495	06.67	02.27	017.2	B	B4	*2	C7A
	.2087	-.5484	06.32	02.24	005.0	B			C7A

CRATER	XSI	ETA	XINS	YINS	DIAM	Q	P	RMKS	REG
	.2179	-.5472	05.87	02.21	005.7	C			C7A
	.2239	-.5418	05.56	01.95	005.7	B			C7A
	.2315	-.5475	05.21	02.27	003.2	B			C7A
	.2332	-.5412	05.11	01.95	004.7	C			C7A
	.2441	-.5406	04.58	01.96	011.5	A	C		C7A
	.2447	-.5435	04.56	02.11	004.3	C			C7A
	.2532	-.5406	04.14	01.99	003.6	B			C7A
	.0569	-.5546	13.70	02.09	018.3	B			C7A
	.0832	-.5573	12.43	02.30	011.8	B	B4		C7A
	.1044	-.5504	11.38	02.01	006.8	C			C7A
	.1079	-.5531	11.22	02.16	003.6	C			C7A
POISSON M	.1105	-.5580	11.11	02.42	007.2	B			C7A
POISSON F	.1160	-.5550	10.83	02.28	014.3	A			C7A
POISSON E	.1238	-.5598	10.47	02.55	021.1	B		*1	C7A
	.1241	-.5524	10.43	02.17	002.1	C			C7A
	.1287	-.5595	10.23	02.55	006.1	B			C7A
	.1353	-.5564	09.90	02.41	003.9	B			C7A
	.1400	-.5590	09.68	02.56	011.8	B	B6		C7A
	.1454	-.5532	09.40	02.28	004.3	C			C7A
	.1723	-.5520	08.09	02.30	014.0	B	A4		C7A
	.1750	-.5572	07.98	02.58	008.6	B			C7A
	.2122	-.5583	06.18	02.76	006.1	C			C7A
GOODACRE D	.2173	-.5506	05.91	02.38	007.5	B			C7A
GOODACRE E	.2245	-.5445	05.54	02.09	006.8	A			C7A
ZAGUT O	.2401	-.5455	04.79	02.20	011.1	B			C7A
	.2569	-.5522	04.00	02.60	016.5	B			C7A
	.0571	-.5632	13.72	02.53	002.5	B			C7A
	.0608	-.5698	13.56	02.88	003.9	B			C7A
	.0759	-.5643	12.81	02.64	004.3	C			C7A
NONIUS G	.0820	-.5694	12.53	02.92	006.4	B			C7A
	.0920	-.5622	12.02	02.58	005.0	B			C7A
	.1032	-.5633	11.48	02.67	003.2	B			C7A
	.1056	-.5681	11.38	02.92	002.9	C			C7A
	.1074	-.5648	11.28	02.76	011.1	B			C7A
	.1106	-.5625	11.12	02.65	003.9	B			C7A
	.1200	-.5645	10.67	02.78	003.6	C			C7A
	.1347	-.5683	09.97	03.02	003.9	C			C7A
	.1398	-.5618	09.70	02.70	003.9	B			C7A
	.1406	-.5681	09.68	03.03	003.9	C			C7A
GEMMA FRISIUS D	.1567	-.5642	08.89	02.88	027.9	A			C7A
GEMMA FRISIUS M	.1786	-.5626	07.82	02.87	004.7	A			C7A
GEMMA FRISIUS	.1912	-.5622	07.21	02.89	090.6	A	B8	*2	C7A
	.2155	-.5697	06.06	03.36	003.9	C			C7A
	.2243	-.5691	05.63	03.36	014.3	B	B5		C7A
	.2307	-.5602	05.29	02.92	010.7	B			C7A
GEMMA FRISIUS U	.2377	-.5674	04.98	03.32	008.2	A			C7A
	.2385	-.5610	04.92	02.99	021.5	B			C7A
	.0604	-.5737	13.59	03.08	003.9	C			C7A
	.0663	-.5775	13.32	03.29	004.3	B			C7A
	.0706	-.5749	13.10	03.17	003.6	C			C7A

CRATER	XSI	ETA	XINS	YINS	DIAM	Q	P	RMKS	REG
NONIUS A	.0793	-.5785	12.69	03.38	011.1	A			C7A
	.0817	-.5712	12.55	03.01	006.4	C			C7A
	.0945	-.5772	11.95	03.36	002.5	C			C7A
	.0954	-.5723	11.89	03.11	003.9	C			C7A
	.0959	-.5744	11.87	03.22	004.3	B			C7A
KAI SER E	.1026	-.5721	11.54	03.12	006.4	B	B4		C7A
	.1033	-.5746	11.51	03.25	002.9	B			C7A
	.1040	-.5753	11.48	03.29	013.2	B	B4	*6	C7A
POISSON J	.1185	-.5733	10.77	03.23	028.6	B	B4	*2	C7A
	.1189	-.5708	10.74	03.10	003.6	B			C7A
	.1281	-.5718	10.30	03.18	005.0	C			C7A
POISSON O	.1303	-.5738	10.20	03.29	006.1	B			C7A
	.1305	-.5776	10.20	03.49	006.8	B			C7A
	.1368	-.5755	09.89	03.40	010.4	B			C7A
	.1402	-.5712	09.71	03.19	004.7	B			C7A
	.1538	-.5743	09.06	03.39	003.9	B			C7A
	.1546	-.5704	09.01	03.19	002.9	C			C7A
	.1963	-.5737	07.00	03.50	010.7	B			C7A
	.2095	-.5701	06.35	03.36	018.3	B			C7A
GEMMA FRISIUS S	.2120	-.5769	06.25	03.72	006.4	C			C7A
	.2146	-.5719	06.11	03.47	003.9	C			C7A
GEMMA FRISIUS T	.2324	-.5724	05.25	03.56	009.3	A			C7A
	.0605	-.5859	13.63	03.71	007.5	B			C7A
	.0648	-.5859	13.42	03.72	004.3	B			C7A
	.0665	-.5868	13.34	03.77	003.6	C			C7A
	.0816	-.5822	12.59	03.58	003.2	C			C7A
	.0916	-.5809	12.10	03.54	006.8	B			C7A
	.1010	-.5825	11.65	03.65	008.2	B	B4		C7A
	.1107	-.5885	11.20	03.99	022.9	B	B4		C7A
	.1127	-.5880	11.10	03.97	003.9	B			C7A
	.1235	-.5831	10.56	03.75	014.7	C	B6		C7A
	.1412	-.5824	09.70	03.77	004.3	C			C7A
GEMMA FRISIUS F	.1457	-.5849	09.49	03.91	009.7	A			C7A
	.1516	-.5806	09.19	03.71	007.5	A			C7A
	.1673	-.5839	08.44	03.93	003.2	C			C7A
	.1765	-.5851	08.00	04.02	006.1	C			C7A
	.1821	-.5804	07.71	03.80	003.9	B			C7A
	.1828	-.5845	07.69	04.01	009.7	C			C7A
	.1947	-.5808	07.10	03.86	011.1	B			C7A
	.2029	-.5858	06.72	04.15	007.2	B			C7A
	.2053	-.5812	06.59	03.92	010.0	A			C7A
GEMMA FRISIUS Q	.2072	-.5846	06.51	04.10	009.3	B			C7A
GEMMA FRISIUS A	.2153	-.5856	06.12	04.18	067.3	B	B4		C7A
GEMMA FRISIUS B	.2401	-.5820	04.91	04.08	044.0	B	B4		C7A
GEMMA FRISIUS C	.2614	-.5822	03.88	04.17	034.7	B	B4		C7A
	.0650	-.5950	13.44	04.19	007.2	B			C7A
	.0669	-.5906	13.33	03.97	003.2	C			C7A
	.0881	-.5954	12.32	04.28	002.9	B			C7A
	.0893	-.5983	12.27	04.43	002.9	C			C7A
	.0897	-.5921	12.23	04.11	002.9	C			C7A

CRATER	XSI	ETA	XINS	YINS	DIAM	Q	P	RMKS	REG
KAISER	.0909	-.5951	12.18	04.27	053.3	A	A4		C7A
	.0932	-.5959	12.07	04.32	002.5	C			C7A
KAISER A	.1027	-.5919	11.60	04.14	027.6	B		*1	C7A
	.1156	-.5969	10.99	04.44	023.6	B	B4		C7A
KAISER C	.1349	-.5954	10.05	04.42	012.9	A			C7A
	.1474	-.5913	09.43	04.25	005.0	B			C7A
	.1493	-.5926	09.34	04.32	003.6	C			C7A
	.1531	-.5931	09.16	04.36	004.7	B			C7A
GEMMA FRISIUS EA	.1672	-.5970	08.49	04.61	014.0	A			C7A
	.1724	-.5986	08.24	04.71	009.0	B			C7A
	.1754	-.5996	08.10	04.77	003.9	C			C7A
	.1805	-.5906	07.82	04.32	004.3	C			C7A
	.1839	-.5940	07.67	04.51	016.8	C			C7A
	.1955	-.5923	07.10	04.46	004.3	C			C7A
	.2012	-.5997	06.85	04.86	003.6	C			C7A
	.2058	-.5995	06.63	04.87	004.7	C			C7A
	.2066	-.5910	06.56	04.43	003.9	B			C7A
	.2286	-.5955	05.51	04.74	005.7	B			C7A
	.2323	-.5972	05.34	04.84	002.9	C			C7A
	.2330	-.5936	05.29	04.66	010.0	C			C7A
BUSCHING E	.2534	-.5972	04.32	04.92	014.7	A			C7A
	.0684	-.6085	13.32	04.90	003.2	C		*1	C7A
	.0691	-.6013	13.26	04.53	003.2	B			C7A
	.0760	-.6087	12.95	04.93	002.9	C			C7A
	.0836	-.6057	12.57	04.80	004.3	B			C7A
	.0864	-.6071	12.44	04.88	004.7	B			C7A
	.0948	-.6010	12.01	04.59	003.6	C			C7A
	.0996	-.6044	11.79	04.78	003.9	C			C7A
KAISER D	.1027	-.6021	11.63	04.67	003.6	C			C7A
	.1098	-.6025	11.29	04.71	007.5	B			C7A
	.1113	-.6041	11.22	04.80	006.4	C			C7A
	.1123	-.6095	11.19	05.08	007.2	B			C7A
	.1163	-.6015	10.97	04.68	003.9	C			C7A
	.1409	-.6060	09.79	04.99	004.3	B			C7A
	.1411	-.6047	09.78	04.92	003.9	B			C7A
	.1454	-.6075	09.58	05.08	004.3	C			C7A
GEMMA FRISIUS K	.1508	-.6083	09.32	05.14	010.7	A			C7A
	.1695	-.6015	08.39	04.85	005.7	C			C7A
GEMMA FRISIUS E	.1762	-.6055	08.08	05.08	019.7	A			C7A
	.1803	-.6080	07.89	05.22	003.2	C			C7A
GEMMA FRISIUS EB	.1848	-.6007	07.65	04.86	014.7	A			C7A
	.1863	-.6087	07.60	05.28	031.1	B			C7A
	.1951	-.6006	07.15	04.89	015.0	B		B5	C7A
	.1953	-.6070	07.16	05.22	008.2	C			C7A
	.2059	-.6020	06.63	05.00	003.6	C			C7A
GEMMA FRISIUS R	.2112	-.6036	06.38	05.10	004.7	B			C7A
	.2255	-.6073	05.70	05.34	003.9	C			C7A
	.2279	-.6059	05.58	05.28	002.9	C			C7A
BUCH	.2355	-.6075	05.22	05.39	028.6	B		B5	C7A
	.2438	-.6052	04.81	05.30	005.4	B			C7A

CRATER	XSI	ETA	XINS	YINS	DIAM	Q	P	RMKS	REG
BUSCHING C	.2591	-.6057	04.07	05.38	010.0	C			C7A
	.2638	-.6011	03.83	05.16	015.4	B	B5		C7A
	.2666	-.6053	03.71	05.39	007.2	B			C7A
FERNELIUS	.0652	-.6141	13.49	05.18	003.2	B			C7A
	.0679	-.6174	13.37	05.36	071.6	A			C7A
	.0714	-.6130	13.19	05.14	003.2	B			C7A
	.0878	-.6159	12.40	05.34	005.0	A		*1	C7A
	.0939	-.6171	12.11	05.42	002.1	C			C7A
	.1001	-.6152	11.80	05.34	005.7	C			C7A
	.1036	-.6173	11.64	05.46	004.3	C			C7A
	.1085	-.6143	11.39	05.32	002.5	B			C7A
	.1215	-.6195	10.78	05.63	007.9	B			C7A
MAUROLYCUS H	.1317	-.6149	10.27	05.42	003.6	B			C7A
	.1420	-.6189	09.78	05.66	008.2	A			C7A
	.1451	-.6152	09.62	05.48	004.7	B			C7A
	.1457	-.6121	09.58	05.32	003.2	B			C7A
	.1458	-.6194	09.60	05.70	002.9	B			C7A
	.1474	-.6129	09.50	05.37	003.9	B			C7A
	.1480	-.6150	09.48	05.48	002.9	B			C7A
	.1598	-.6127	08.90	05.40	003.6	B			C7A
	.1598	-.6191	08.92	05.73	003.9	C			C7A
	.1620	-.6176	08.81	05.66	005.4	C			C7A
MAUROLYCUS P	.1643	-.6123	08.68	05.39	007.9	B			C7A
	.1743	-.6172	08.21	05.68	006.1	A			C7A
	.1759	-.6129	08.12	05.46	006.1	C			C7A
	.1766	-.6113	08.08	05.38	005.7	B			C7A
	.1841	-.6144	07.73	05.57	004.3	B			C7A
	.2189	-.6137	06.04	05.65	003.6	B			C7A
	.2215	-.6118	05.91	05.56	007.5	B		*1	C7A
BUCH B	.2307	-.6138	05.47	05.70	007.5	A			C7A
	.2507	-.6180	04.52	05.99	005.4	B			C7A
	.2528	-.6155	04.41	05.87	004.7	A			C7A
	.2554	-.6119	04.27	05.69	005.0	C			C7A
BUSCHING	.2684	-.6161	03.66	05.96	053.7	A	B6	*2	C7A
FERNELIUS E	.0904	-.6204	12.29	05.58	005.7	B			C7A
	.0919	-.6238	12.23	05.76	002.9	C			C7A
	.0957	-.6282	12.06	06.00	004.7	B			C7A
	.0981	-.6278	11.94	05.99	003.6	B			C7A
	.1073	-.6288	11.50	06.07	002.9	C			C7A
	.1170	-.6292	11.03	06.12	003.9	C			C7A
	.1216	-.6222	10.78	05.77	006.4	B			C7A
MAUROLYCUS E	.1327	-.6206	10.24	05.72	006.1	B			C7A
	.1335	-.6261	10.22	06.01	002.9	C			C7A
	.1355	-.6202	10.10	05.71	004.7	B			C7A
	.1355	-.6252	10.12	05.97	002.5	C			C7A
	.1364	-.6273	10.08	06.08	004.3	B			C7A
	.1377	-.6253	10.01	05.98	003.2	C			C7A
	.1401	-.6234	09.89	05.89	002.9	B			C7A
	.1431	-.6284	09.76	06.16	003.2	B			C7A
	.1442	-.6203	09.68	05.74	002.9	B			C7A

CRATER	XSI	ETA	XINS	YINS	DIAM	Q	P	RMKS	REG
MAUROLYCUS C	•1462	-•6247	09.60	05.98	009.3	A			C7A
	•1490	-•6205	09.45	05.77	004.7	A			C7A
MAUROLYCUS K	•1492	-•6294	09.47	06.23	004.7	B			C7A
	•1690	-•6233	08.49	05.98	007.5	B			C7A
BUCH E	•1694	-•6288	08.49	06.27	006.4	C			C7A
	•1702	-•6200	08.42	05.81	006.4	C			C7A
BUCH	•1765	-•6245	08.13	06.07	005.7	B			C7A
	•1888	-•6201	07.52	05.88	003.2	B			C7A
STOFLER L	•1889	-•6249	07.53	06.13	003.9	B			C7A
	•2185	-•6277	06.11	06.38	006.1	B			C7A
STOFLER T	•2213	-•6290	05.98	06.46	007.9	C	*1		C7A
	•2308	-•6299	05.52	06.54	002.5	C			C7A
BUCH D	•2367	-•6220	05.21	06.15	003.9	B	B6		C7A
	•2416	-•6248	04.98	06.31	003.2	B			C7A
STOFLER U	•2704	-•6279	03.60	06.58	004.3	B			C7A
	•0880	-•6302	12.44	06.08	003.6	B			C7A
MAUROLYCUS D	•1061	-•6304	11.56	06.15	018.6	B			C7A
	•1094	-•6381	11.43	06.56	005.4	B			C7A
BUCH D	•1167	-•6308	11.05	06.20	003.2	C			C7A
	•1232	-•6300	10.73	06.18	005.4	B			C7A
MAUROLYCUS B	•1248	-•6314	10.66	06.26	004.7	B			C7A
	•1263	-•6325	10.59	06.32	004.3	B			C7A
STOFLER U	•1275	-•6349	10.54	06.45	004.7	C			C7A
	•1427	-•6340	09.80	06.45	003.9	B			C7A
BUCH D	•1443	-•6308	09.71	06.29	003.6	C			C7A
	•1492	-•6322	09.48	06.38	004.3	C			C7A
STOFLER U	•1592	-•6335	09.00	06.48	021.8	B			C7A
	•1775	-•6302	08.10	06.37	043.3	C			C7A
MAUROLYCUS B	•1815	-•6397	07.94	06.88	006.1	C			C7A
	•1845	-•6380	07.79	06.80	004.7	C			C7A
STOFLER U	•2190	-•6378	06.12	06.91	007.2	B			C7A
	•2194	-•6320	06.08	06.61	007.5	B			C7A
MAUROLYCUS B	•2226	-•6368	05.94	06.87	005.7	C			C7A
	•2725	-•6312	03.51	06.76	003.9	C			C7A
STOFLER U	•0725	-•6447	13.24	06.79	002.5	C			C7A
	•0729	-•6418	13.21	06.64	003.6	B			C7A
MAUROLYCUS B	•0736	-•6490	13.20	07.02	003.2	C			C7A
	•0763	-•6406	13.04	06.59	002.9	B			C7A
STOFLER U	•1277	-•6445	10.56	06.95	006.4	B			C7A
	•1291	-•6498	10.51	07.23	003.9	C			C7A
MAUROLYCUS B	•1455	-•6444	09.70	07.00	003.9	B			C7A
	•1469	-•6494	09.65	07.27	054.8	B	B4		C7A
STOFLER U	•1559	-•6464	09.20	07.14	013.2	A			C7A
	•1700	-•6441	08.51	07.07	009.3	B			C7A
MAUROLYCUS B	•1707	-•6481	08.49	07.28	007.2	B			C7A
	•1814	-•6497	07.98	07.40	003.9	C			C7A
STOFLER U	•1865	-•6404	07.70	06.93	004.3	C			C7A
	•2059	-•6435	06.77	07.16	003.6	B			C7A
MAUROLYCUS B	•2165	-•6437	06.26	07.21	003.2	C			C7A

CRATER	XSI	ETA	XINS	YINS	DIAM	Q	P	RMKS	REG
	•2366	-.6475	05.30	07.48	003.2	C			C7A
	•2458	-.6457	04.85	07.42	003.2	B			C7A
	•2665	-.6452	03.85	07.47	010.4	B		*1	C7A
	•2669	-.6482	03.84	07.63	005.7	B			C7A
STOFLER	•0804	-.6578	12.90	07.50	138.2	A			C7A
	•0871	-.6588	12.58	07.57	004.3	C			C7A
	•1033	-.6523	11.77	07.28	003.6	C			C7A
STOFLER M	•1068	-.6551	11.61	07.44	015.8	C		*1	C7A
	•1480	-.6534	09.61	07.48	004.3	C			C7A
MAUROLYCUS T	•1488	-.6598	09.59	07.82	010.0	B			C7A
MAUROLYCUS F	•1507	-.6565	09.49	07.65	006.4	B			C7A
	•1619	-.6512	08.93	07.41	025.8	B			C7A
	•1646	-.6575	08.82	07.75	004.3	B			C7A
	•1771	-.6502	08.19	07.41	004.7	B			C7A
	•1817	-.6571	07.99	07.79	003.9	C			C7A
	•1820	-.6586	07.98	07.87	003.6	C			C7A
MAUROLYCUS N	•1832	-.6553	07.91	07.70	007.9	C			C7A
MAUROLYCUS R	•1895	-.6591	07.62	07.92	002.1	C			C7A
	•2119	-.6547	06.52	07.77	004.3	B			C7A
BUCH A	•2165	-.6559	06.30	07.85	002.5	C			C7A
	•2283	-.6561	05.73	07.90	019.7	B	B5		C7A
	•2341	-.6532	05.44	07.77	002.5	B			C7A
	•2526	-.6502	04.54	07.68	003.6	C			C7A
	•2601	-.6546	04.19	07.94	003.6	C			C7A
	•0787	-.6619	13.00	07.71	003.2	C			C7A
STOFLER N	•0868	-.6668	12.62	07.99	013.6	B			C7A
FARADAY A	•1121	-.6627	11.38	07.85	003.6	C			C7A
	•1269	-.6625	10.66	07.89	021.5	B	B4		C7A
	•1383	-.6633	10.13	08.23	005.0	C			C7A
	•1451	-.6654	09.79	08.10	003.9	B			C7A
	•1612	-.6628	09.00	08.02	009.0	C			C7A
MAUROLYCUS M	•1621	-.6660	08.97	08.19	010.0	B			C7A
	•1642	-.6693	08.88	08.17	007.9	B			C7A
MAUROLYCUS	•1801	-.6669	08.10	08.36	113.8	A	A5	*2	C7A
MAUROLYCUS L	•1852	-.6687	07.36	08.41	006.4	B			C7A
MAUROLYCUS S	•2177	-.6697	06.29	08.58	006.4	B			C7A
	•2288	-.6682	05.75	08.56	003.6	B			C7A
	•2303	-.6605	05.65	08.56	003.9	B			C7A
	•2589	-.6689	04.30	08.89	003.2	B			C7A
	•2659	-.6684	03.96	08.69	004.7	B			C7A
	•2686	-.6661	03.82	08.58	007.9	B			C7A
	•0817	-.6727	12.89	08.28	005.0	C			C7A
	•0828	-.6760	12.85	08.46	003.6	C			C7A
	•0832	-.6771	12.83	08.52	004.3	B			C7A
	•0845	-.6748	12.76	08.40	003.9	C			C7A
	•0872	-.6744	12.63	08.39	004.3	B			C7A
FARADAY	•1119	-.6745	11.43	08.47	072.7	A			C7A
FARADAY K	•1326	-.6776	10.44	08.70	006.8	B			C7A
	•1332	-.6747	10.40	08.55	002.9	B			C7A
	•1391	-.6740	10.11	08.53	003.9	B			C7A

CRATER	XSI	ETA	XINS	YINS	DIAM	Q	P	RMKS	REG
MAUROLYCUS J	•1450	-.6704	09.81	08.36	002.9	B			C7A
	•1461	-.6733	09.77	08.52	007.2	B			C7A
	•1778	-.6747	08.24	08.70	009.7	A			C7A
	•1921	-.6779	07.56	08.92	004.3	B			C7A
	•2357	-.6774	05.45	09.05	004.7	C			C7A
	•2386	-.6744	05.30	08.90	011.8	B			C7A
	•2410	-.6797	05.20	09.19	011.5	C			C7A
BAROCIUS M	•2466	-.6742	04.91	08.92	016.5	A			C7A
	•2518	-.6768	04.67	09.08	007.2	B			C7A
	•2571	-.6784	04.42	09.18	003.6	B			C7A
	•2602	-.6705	04.24	08.78	006.1	B			C7A
BAROCIUS G	•2651	-.6753	04.02	09.05	024.3	B	B4		C7A
	•2740	-.6777	03.60	09.21	006.4	C			C7A
BAROCIUS S	•2755	-.6751	03.52	09.08	006.1	C			C7A
	•2798	-.6742	03.31	09.05	005.0	B			C7A
	•0763	-.6815	13.18	08.73	005.4	B			C7A
STOFLER P	•0938	-.6859	12.35	09.01	037.2	B	B4	*1	C7A
FARADAY C	•1028	-.6855	11.91	09.02	028.3	A	B6		C7A
	•1173	-.6898	11.22	09.29	003.9	B			C7A
	•1356	-.6850	10.32	09.10	003.6	C			C7A
	•1436	-.6822	09.92	08.98	003.9	B			C7A
	•1592	-.6869	09.18	09.28	003.2	B			C7A
	•1604	-.6884	09.13	09.36	003.2	C			C7A
	•1688	-.6873	08.72	09.33	007.2	B			C7A
	•1715	-.6877	08.59	09.36	085.9	B	B4		C7A
MAUROLYCUS A	•1775	-.6875	08.30	09.37	015.8	A			C7A
	•1788	-.6802	08.21	08.99	001.8	C			C7A
	•1894	-.6891	07.73	09.50	004.3	C			C7A
	•1917	-.6869	07.61	09.39	003.6	C			C7A
BAROCIUS C	•2200	-.6835	06.23	09.31	031.5	C	B4		C7A
	•2297	-.6867	05.77	09.52	003.6	B			C7A
	•2454	-.6803	04.99	09.24	002.9	C			C7A
BAROCIUS N	•2469	-.6836	04.93	09.42	010.4	A			C7A
	•2521	-.6867	04.69	09.60	004.7	C			C7A
	•2647	-.6886	04.09	09.75	007.5	B			C7A
	•2680	-.6831	03.91	09.47	003.2	C			C7A
	•2699	-.6805	03.81	09.34	003.2	C			C7A
	•2780	-.6863	03.44	09.68	002.9	B			C7A
NICOLAI G	•2784	-.6806	03.40	09.38	010.0	A	B4		C7A
	•1022	-.6966	11.98	09.60	005.4	B			C7A
	•1058	-.6988	11.81	09.73	013.6	B			C7A
	•1075	-.6936	11.71	09.46	007.5	C			C7A
	•1149	-.6905	11.34	09.32	004.3	C			C7A
	•1155	-.6929	11.32	09.45	009.0	C			C7A
	•1174	-.6970	11.24	09.67	010.4	C			C7A
	•1198	-.6978	11.13	09.72	005.0	C			C7A
FARADAY D	•1216	-.6912	11.02	09.38	013.6	A			C7A
	•1263	-.6917	10.79	09.42	003.6	C			C7A
	•1267	-.6998	10.80	09.85	007.2	C			C7A
	•1370	-.6994	10.30	09.86	005.4	C			C7A

CRATER	XSI	ETA	XINS	YINS	DIAM	Q	P	RMKS	REG
BAROCIUS B	•1406	-.6923	10.10	09.50	003.6	B			C7A
	•1427	-.6986	10.02	09.84	003.2	C			C7A
	•1430	-.6999	10.01	09.91	007.5	A			C7A
	•1611	-.6982	09.13	09.88	002.1	C			C7A
	•1667	-.6935	08.84	09.65	001.8	C			C7A
	•1767	-.6915	08.35	09.58	003.2	B			C7A
	•2079	-.6998	06.87	10.13	002.9	C			C7A
	•2254	-.6956	06.01	09.97	038.3	A			C7A
	•2448	-.6978	05.08	10.16	003.9	B			C7A
	•2558	-.6979	04.55	10.21	020.4	A			C7A
BAROCIUS R	•2649	-.6924	04.09	09.95	014.0	B	B4		C7A
	•2783	-.6936	03.45	10.07	004.3	B			C7A
	•2803	-.6986	03.37	10.34	003.2	C			C7A
LICETUS S	•0925	-.7006	12.46	09.78	004.3	B		*1	C7A
	•1008	-.7097	12.09	10.29	012.2	B			C7A
	•1100	-.7056	11.63	10.10	007.2	C			C7A
	•1103	-.7095	11.63	10.31	002.1	C			C7A
	•1125	-.7033	11.50	09.99	022.6	B			C7A
MAUROLYCUS G	•1130	-.7073	11.49	10.20	006.1	B		*1	C7A
	•1152	-.7056	11.38	10.12	007.9	B			C7A
	•1230	-.7019	10.99	09.95	003.6	B			C7A
	•1250	-.7041	10.90	10.07	003.2	C			C7A
	•1263	-.7076	10.85	10.26	014.3	A			C7A
FARADAY H	•1272	-.7041	10.79	10.08	004.7	C			C7A
	•1277	-.7079	10.78	10.28	007.9	C			C7A
	•1385	-.7055	10.25	10.19	010.0	B			C7A
	•1415	-.7095	10.12	10.41	003.9	A			C7A
	•1437	-.7067	10.00	10.27	002.9	B			C7A
	•1461	-.7056	09.88	10.22	003.6	C			C7A
	•1638	-.7071	09.03	10.36	005.7	C			C7A
	•1773	-.7024	08.36	10.16	004.7	C			C7A
	•1969	-.7013	07.41	10.17	005.0	B			C7A
	•2046	-.7059	07.05	10.44	084.5	A		*2	C7A
BAROCIUS K	•2373	-.7087	05.48	10.71	014.0	A			C7A
	•2420	-.7074	05.25	10.66	004.3	B			C7A
	•2468	-.7027	05.00	10.43	003.6	B			C7A
	•2481	-.7008	04.93	10.33	003.9	B			C7A
	•2585	-.7061	04.45	10.65	027.6	A			C7A
BAROCIUS J	•0808	-.7172	13.09	10.62	007.5	A			C7A
	•0837	-.7183	12.95	10.69	005.7	B			C7A
	•0864	-.7180	12.82	10.68	002.1	C			C7A
LICETUS T	•0884	-.7116	12.70	10.35	027.9	C	B4		C7A
	•0988	-.7191	12.22	10.78	004.3	C			C7A
	•1035	-.7185	11.99	10.76	007.2	B			C7A
	•1049	-.7120	11.90	10.42	004.3	C			C7A
	•1089	-.7102	11.70	10.34	002.9	B			C7A
	•1106	-.7108	11.62	10.38	002.5	B			C7A
	•1121	-.7111	11.55	10.40	003.2	B			C7A
	•1220	-.7175	11.09	10.77	031.5	A	B5	*2	C7A
	•1315	-.7116	10.61	10.49	007.9	B			C7A

CRATER	XSI	ETA	XINS	YINS	DIAM	Q	P	RMKS	REG
CLAIRAUT J	•1360	-.7104	10.39	10.44	007.2	B			C7A
	•1360	-.7199	10.42	10.94	006.8	B			C7A
	•1384	-.7150	10.29	10.69	007.5	A			C7A
	•1467	-.7101	09.87	10.46	003.2	B			C7A
	•1547	-.7160	09.50	10.80	013.2	B			C7A
	•1638	-.7100	09.04	10.51	004.3	B			C7A
	•1650	-.7182	09.01	10.95	003.2	B			C7A
	•1736	-.7167	08.59	10.90	024.0	C	B4		C7A
	•2286	-.7188	05.94	11.21	009.3	A			C7A
	•2562	-.7170	04.60	11.22	014.7	B	B4		C7A
BAROCIUS D	•2582	-.7136	04.49	11.05	005.0	C			C7A
	•2612	-.7155	04.35	11.16	004.7	B			C7A
	•2858	-.7146	03.16	11.21	005.0	B			C7A
LICETUS U	•2867	-.7126	03.11	11.11	003.9	B			C7A
	•0891	-.7297	12.73	11.31	006.4	A			C7A
	•1012	-.7207	12.11	10.87	005.0	C			C7A
	•1023	-.7267	12.08	11.19	004.7	B			C7A
	•1104	-.7245	11.68	11.10	003.9	B			C7A
	•1194	-.7292	11.26	11.38	005.0	C			C7A
	•1201	-.7256	11.21	11.19	006.1	B			C7A
	•1255	-.7258	10.95	11.22	004.7	C			C7A
	•1261	-.7278	10.93	11.33	004.7	C			C7A
	•1281	-.7249	10.82	11.18	004.7	C			C7A
CLAIRAUT E	•1427	-.7208	10.10	11.01	006.4	B			C7A
	•1512	-.7236	09.70	11.19	028.6	A			C7A
CLAIRAUT M	•1568	-.7276	09.44	11.42	002.9	C			C7A
	•1651	-.7219	09.02	11.15	006.8	B			C7A
BAROCIUS EB	•2267	-.7223	06.04	11.39	006.1	A			C7A
	•2400	-.7223	05.40	11.44	008.2	B	B4		C7A
	•2532	-.7268	04.78	11.73	010.7	A			C7A
BAROCIUS ED	•2609	-.7273	04.41	11.79	004.7	B			C7A
	•2647	-.7227	04.21	11.56	007.2	B			C7A
SPALLANZANI	•2700	-.7246	03.96	11.68	014.3	B			C7A
	•2709	-.7283	03.93	11.88	005.4	B			C7A
	•2885	-.7230	03.06	11.67	030.8	A	B4		C7A
CLAIRAUT G	LICETUS Q	•1147	-.7336	11.50	11.60	007.9	A		C7A
		•1220	-.7336	11.15	11.62	023.6	B		C7A
		•1229	-.7380	11.12	11.86	002.9	C		C7A
		•1310	-.7388	10.73	11.93	013.6	B		C7A
		•1377	-.7339	10.39	11.69	006.4	B		C7A
CLAIRAUT D		•1395	-.7368	10.31	11.85	006.1	B		C7A
		•1458	-.7319	09.99	11.61	003.2	B		C7A
		•1632	-.7332	09.15	11.74	012.2	B	*4	C7A
		•1662	-.7343	09.01	11.81	012.2	B	*4	C7A
BREISLAK A		•1752	-.7358	08.58	11.92	002.5	C		C7A
		•1899	-.7365	07.87	12.01	024.0	B	B5	C7A
		•2011	-.7340	07.32	11.92	004.3	B		C7A
		•2036	-.7305	07.19	11.74	007.5	B		C7A
BREISLAK B		•2103	-.7377	06.89	12.15	007.5	B		C7A
		•2166	-.7363	06.58	12.10	003.2	C		C7A

CRATER	XSI	ETA	XINS	YINS	DIAM	Q	P	RMKS	REG
BREISLAK G	•2219	-•7382	06.33	12.22	002.9	B			C7A
	•2220	-•7335	06.31	11.97	003.6	C			C7A
	•2228	-•7395	06.29	12.29	002.1	C			C7A
	•2245	-•7305	06.18	11.82	015.8	B			C7A
	•2258	-•7376	06.14	12.20	003.9	B			C7A
	•2262	-•7343	06.11	12.03	003.6	C			C7A
BAROCIUS EA	•2425	-•7309	05.31	11.91	014.3	A	B4		C7A
BAROCIUS E	•2535	-•7389	04.81	12.38	018.3	B			C7A
	•2566	-•7337	04.64	12.11	022.9	B	B4		C7A
BAROCIUS EE	•2591	-•7316	04.51	12.01	003.6	B			C7A
PITISCUS G	•2697	-•7368	04.02	12.33	007.9	A			C7A
	•2795	-•7318	03.53	12.10	004.3	B			C7A
	•2795	-•7376	03.55	12.41	003.6	C			C7A
	•2864	-•7391	03.22	12.52	014.7	A			C7A
	•0849	-•7490	13.00	12.32	003.9	C			C7A
	•0987	-•7461	12.32	12.21	003.2	C			C7A
CLAIRAUT B	•0992	-•7406	12.28	11.92	002.9	B			C7A
	•1046	-•7450	12.03	12.17	002.9	C			C7A
	•1059	-•7457	11.97	12.21	003.2	C			C7A
	•1176	-•7498	11.42	12.47	003.6	C			C7A
	•1240	-•7496	11.11	12.48	003.2	C			C7A
	•1306	-•7498	10.79	12.51	002.5	C			C7A
	•1310	-•7417	10.74	12.08	006.1	C			C7A
	•1455	-•7473	10.06	12.43	039.4	B			C7A
	•1614	-•7478	09.29	12.51	004.7	C			C7A
CLAIRAUT	•1625	-•7400	09.21	12.10	073.0	B			C7A
BREISLAK	•1830	-•7430	08.23	12.33	014.3	B	B5		C7A
	•1934	-•7473	07.74	12.60	003.6	C			C7A
	•1939	-•7447	07.71	12.46	003.9	C			C7A
	•2022	-•7452	07.31	12.52	002.9	C			C7A
	•2072	-•7467	07.07	12.62	003.6	C			C7A
	•2074	-•7411	07.04	12.32	002.1	C			C7A
BREISLAK D	•2086	-•7455	07.00	12.56	050.1	A			C7A
	•2102	-•7445	06.92	12.51	003.2	C			C7A
	•2120	-•7442	06.83	12.50	002.9	C			C7A
BREISLAK E	•2144	-•7421	06.71	12.40	004.7	B			C7A
BREISLAK F	•2202	-•7402	06.42	12.32	007.5	B			C7A
BAROCIUS EC	•2210	-•7475	06.41	12.71	006.8	B			C7A
	•2211	-•7495	06.41	12.82	012.5	C			C7A
	•2235	-•7488	06.29	12.79	003.9	B			C7A
	•2278	-•7451	06.07	12.61	006.4	B			C7A
	•2551	-•7444	04.75	12.68	006.8	A			C7A
	•2552	-•7405	04.73	12.47	002.9	C			C7A
CUVIER H	•2570	-•7497	04.68	12.97	004.3	C			C7A
	•2703	-•7400	04.00	12.50	005.0	C			C7A
	•2715	-•7417	03.95	12.60	007.2	C			C7A
	•2765	-•7416	03.71	12.61	002.9	C			C7A
	•0904	-•7502	12.74	12.40	016.1	B			C7A
	•0979	-•7509	12.38	12.46	010.4	A			C7A
CUVIER J	•1002	-•7573	12.29	12.81	004.7	C			C7A

CRATER	XSI	ETA	XINS	YINS	DIAM	Q	P	RMKS	REG
	•1049	-•7570	12.06	12.81	003.2	B			C7A
	•1058	-•7553	12.01	12.72	006.1	B			C7A
CUVIER L	•1118	-•7528	11.71	12.61	013.6	B			C7A
	•1190	-•7548	11.37	12.74	020.8	B			C7A
CUVIER P	•1334	-•7548	10.67	12.79	008.6	A			C7A
CLAIRAUT H	•1378	-•7553	10.46	12.83	008.6	A			C7A
CLAIRAUT C	•1547	-•7435	09.60	12.26	014.3	A	B4		C7A
CLAIRAUT A	•1677	-•7539	09.01	12.86	032.9	A			C7A
	•1784	-•7558	08.50	13.00	002.9	C			C7A
BACO L	•1869	-•7597	08.10	13.24	008.2	A			C7A
	•1883	-•7531	08.01	12.89	003.6	C			C7A
	•1909	-•7527	07.88	12.88	003.6	C			C7A
	•1933	-•7511	07.76	12.80	003.9	C			C7A
	•1946	-•7544	07.71	12.98	003.2	C			C7A
	•1975	-•7543	07.57	12.99	004.3	B			C7A
	•1981	-•7571	07.55	13.14	005.4	B			C7A
BACO M	•2018	-•7565	07.37	13.12	006.4	B			C7A
BACO S	•2063	-•7584	07.16	13.24	017.5	A			C7A
BREISLAK C	•2125	-•7531	06.84	12.98	006.1	B			C7A
	•2207	-•7548	06.45	13.10	004.3	C			C7A
	•2220	-•7554	06.39	13.14	003.2	C			C7A
	•2236	-•7572	06.32	13.24	004.3	B			C7A
BACO R	•2332	-•7563	05.85	13.23	018.3	A			C7A
	•2399	-•7515	05.51	13.00	008.2	B			C7A
	•2461	-•7509	05.21	12.99	007.2	C			C7A
IDELER	•2469	-•7568	05.19	13.31	039.4	A			C7A
IDELER L	•2612	-•7569	04.50	13.37	032.6	A	*2		C7A
	•2747	-•7540	03.84	13.27	010.0	B			C7A
IDELER M	•2832	-•7536	03.43	13.28	019.3	A			C7A
PITISCUS D	•2922	-•7548	03.00	13.38	020.8	A			C7A
CUVIER	•1076	-•7686	11.97	13.44	081.6	A			C7A
CUVIER C	•1315	-•7649	10.80	13.32	008.2	A			C7A
	•1382	-•7607	10.46	13.12	003.9	B			C7A
	•1413	-•7665	10.33	13.44	011.1	B			C7A
	•1428	-•7644	10.25	13.33	003.9	C			C7A
	•1449	-•7646	10.15	13.35	002.5	C			C7A
	•1495	-•7680	09.94	13.55	003.2	B			C7A
CLAIRAUT K	•1559	-•7624	09.61	13.27	013.2	A			C7A
	•1578	-•7653	09.53	13.43	003.6	C			C7A
	•1607	-•7684	09.40	13.61	003.2	C			C7A
	•1610	-•7669	09.38	13.53	004.3	C			C7A
	•1620	-•7616	09.31	13.25	006.4	C			C7A
	•1690	-•7696	09.00	13.70	003.6	C			C7A
	•1727	-•7693	08.82	13.70	002.9	C			C7A
	•1817	-•7648	08.37	13.49	006.4	B			C7A
	•1827	-•7619	08.31	13.34	003.9	B			C7A
BACO B	•1854	-•7610	08.18	13.30	043.7	A			C7A
	•1898	-•7680	07.99	13.69	003.2	C			C7A
BACO F	•1938	-•7692	07.80	13.77	006.4	B			C7A
	•2011	-•7670	07.44	13.68	005.7	C			C7A

CRATER	XSI	ETA	XINS	YINS	DIAM	Q	P	RMKS	REG
	•2064	-.7661	07.18	13.65	004.3	C			C7A
	•2218	-.7637	06.43	13.58	003.9	B			C7A
	•2319	-.7631	05.94	13.59	008.2	B	B4		C7A
	•2320	-.7615	05.93	13.50	004.7	B			C7A
IDELER A	•2396	-.7669	05.58	13.82	011.8	B			C7A
	•2490	-.7677	05.13	13.90	003.6	B			C7A
	•2594	-.7651	04.62	13.80	007.5	B			C7A
	•2670	-.7619	04.24	13.66	004.7	B			C7A
	•2716	-.7699	04.05	14.11	005.7	C			C7A
	•1037	-.7790	12.20	13.98	002.9	B			C7A
	•1055	-.7763	12.10	13.84	003.2	B			C7A
	•1092	-.7762	11.92	13.85	002.5	B			C7A
CUVIER R	•1436	-.7770	10.26	14.01	007.2	B			C7A
	•1591	-.7775	09.51	14.09	003.9	C			C7A
	•1598	-.7704	09.45	13.71	003.9	C			C7A
BACO C	•1610	-.7751	09.41	13.97	013.6	A			C7A
	•1656	-.7731	09.18	13.88	005.0	B			C7A
	•1664	-.7755	09.15	14.01	006.8	B			C7A
	•1743	-.7789	08.78	14.22	004.3	C			C7A
	•1765	-.7747	08.66	14.00	021.5	A			C7A
	•1861	-.7792	08.21	14.28	004.7	B			C7A
	•1879	-.7731	08.10	13.96	005.7	B			C7A
	•1902	-.7704	07.98	13.82	003.2	C			C7A
BACO	•2064	-.7767	07.22	14.22	067.7	A			C7A
BACO P	•2123	-.7755	06.93	14.18	005.7	C			C7A
	•2270	-.7784	06.23	14.39	016.1	C			C7A
	•2276	-.7752	06.19	14.22	004.7	C			C7A
	•2351	-.7728	05.82	14.12	003.6	C			C7A
IDELER B	•2401	-.7734	05.58	14.17	010.4	A			C7A
	•2427	-.7773	05.47	14.39	005.0	C			C7A
	•2441	-.7714	05.38	14.08	005.0	B			C7A
IDELER C	•2461	-.7793	05.31	14.51	006.8	A			C7A
	•0982	-.7857	12.49	14.32	004.7	C			C7A
	•0984	-.7830	12.47	14.18	004.3	C	*1		C7A
	•1010	-.7844	12.35	14.26	003.9	C			C7A
	•1016	-.7812	12.31	14.09	004.3	C			C7A
	•1059	-.7813	12.10	14.11	003.6	B			C7A
	•1131	-.7864	11.77	14.41	004.3	C			C7A
	•1141	-.7832	11.71	14.24	013.6	B			C7A
CUVIER F	•1191	-.7896	11.49	14.60	017.5	A			C7A
	•1227	-.7823	11.29	14.22	005.0	C			C7A
CUVIER O	•1301	-.7840	10.94	14.34	010.7	B			C7A
CUVIER B	•1488	-.7836	10.03	14.38	017.2	A			C7A
	•1577	-.7834	09.60	14.40	006.1	B			C7A
	•1623	-.7868	09.39	14.60	009.7	B			C7A
	•1646	-.7825	09.26	14.38	003.6	C			C7A
	•1671	-.7816	09.14	14.34	004.7	B			C7A
BACO D	•1743	-.7838	08.80	14.48	008.6	A			C7A
	•1827	-.7828	08.39	14.46	013.6	C			C7A
	•1871	-.7847	08.18	14.58	004.7	B			C7A

CRATER	XSI	ETA	XINS	YINS	DIAM	Q	P	RMKS	REG
BACO H	•1998	-•7876	07.58	14.78	006.4	B			C7A
	•2088	-•7832	07.13	14.58	005.4	C			C7A
BACO O	•2092	-•7886	07.13	14.87	010.4	A			C7A
	•2307	-•7887	06.09	14.96	004.7	B			C7A
	•2356	-•7828	05.83	14.66	004.7	B			C7A
	•2418	-•7826	05.53	14.67	004.3	B			C7A
	•2421	-•7805	05.51	14.56	003.6	B			C7A
	•2432	-•7865	05.48	14.89	004.3	B			C7A
	•2492	-•7872	05.19	14.95	013.6	C	B4		C7A
ASCLEPI E	•2502	-•7892	05.15	15.06	006.4	A			C7A
CUVIER K	•1070	-•7900	12.08	14.58	007.2	B			C7A
	•1197	-•7972	11.49	15.01	004.3	B			C7A
	•1240	-•7990	11.29	15.12	002.5	C			C7A
CUVIER A	•1267	-•7921	11.13	14.76	019.3	A			C7A
	•1279	-•7961	11.09	14.98	003.2	C			C7A
	•1304	-•7997	10.98	15.18	019.7	B	B6		C7A
	•1319	-•7973	10.90	15.06	004.3	B			C7A
	•1321	-•7999	10.90	15.20	003.6	B			C7A
	•1362	-•7967	10.69	15.04	003.2	B			C7A
CUVIER E	•1370	-•7912	10.63	14.75	019.0	A			C7A
	•1439	-•7928	10.30	14.86	003.2	B			C7A
	•1441	-•7973	10.31	15.10	018.6	B			C7A
	•1561	-•7984	09.73	15.20	006.8	C			C7A
	•1566	-•7961	09.70	15.08	004.7	B			C7A
	•1626	-•7916	09.39	14.86	013.2	B			C7A
	•1663	-•7934	09.22	14.97	005.0	C			C7A
BACO E	•1679	-•7978	09.16	15.21	027.2	B			C7A
	•1692	-•7906	09.07	14.83	003.9	B			C7A
	•1751	-•7949	08.80	15.08	005.7	C			C7A
	•1953	-•7916	07.81	14.98	019.0	B		*1	C7A
BACO U	•2020	-•7919	07.49	15.02	006.1	A			C7A
BACO A	•2075	-•7969	07.24	15.31	039.7	A		*2	C7A
	•2212	-•7996	06.59	15.51	002.9	B			C7A
	•2279	-•7904	06.23	15.04	003.2	C			C7A
ASCLEPI A	•2348	-•7983	05.93	15.49	014.0	B	B4		C7A
ASCLEPI D	•2419	-•7996	05.59	15.59	006.4	B		*3	C7A
	•2432	-•7955	05.51	15.37	004.3	B			C7A
	•2530	-•7983	05.05	15.56	002.9	C			C7A
	•2573	-•7948	04.83	15.39	018.3	A	B6		C7A
	•2766	-•7974	03.91	15.61	005.4	B			C7A
	•0912	-•8058	12.90	15.38	003.2	B			C7A
	•0922	-•8071	12.86	15.45	003.6	B			C7A
	•0952	-•8039	12.70	15.29	004.7	B			C7A
	•0988	-•8074	12.54	15.49	002.9	B			C7A
	•0996	-•8046	12.49	15.34	004.3	B			C7A
	•1001	-•8060	12.47	15.42	002.5	C			C7A
LILIUS X	•1021	-•8042	12.37	15.33	004.3	B			C7A
	•1024	-•8000	12.34	15.10	003.9	B			C7A
	•1036	-•8027	12.29	15.25	004.3	B			C7A
	•1043	-•8041	12.26	15.33	002.9	C			C7A

CRATER	XSI	ETA	XINS	YINS	DIAM	Q	P	RMKS	REG	
CUVIER M	.1042	-.8050	12.27	15.38	002.9	C			C7A	
	.1130	-.8021	11.83	15.25	006.1	A			C7A	
	.1200	-.8063	11.51	15.50	008.6	B	B4		C7A	
	.1221	-.8047	11.40	15.42	003.2	C			C7A	
	.1296	-.8085	11.05	15.65	005.0	B		*1	C7A	
	.1353	-.8072	10.77	15.60	002.9	C			C7A	
	.1434	-.8074	10.38	15.64	002.5	C			C7A	
	.1450	-.8069	10.30	15.62	002.9	C			C7A	
	.1546	-.8078	09.84	15.70	003.6	C			C7A	
	.1558	-.8027	09.76	15.43	002.5	C			C7A	
	.1599	-.8098	09.59	15.83	004.3	B			C7A	
	.1602	-.8050	09.56	15.57	003.6	C			C7A	
	.1664	-.8033	09.25	15.50	004.3	C			C7A	
	.1766	-.8094	08.78	15.87	031.1	B			C7A	
	.1776	-.8012	08.70	15.43	005.7	C			C7A	
.1785	-.8095	08.69	15.88	004.3	B			C7A		
.1826	-.8035	08.47	15.57	004.7	B			C7A		
BACO T	.1996	-.8064	07.66	15.79	005.4	A			C7A	
	.2026	-.8052	07.51	15.74	003.2	C			C7A	
	BACO W	.2149	-.8012	06.90	15.57	009.7	A			C7A
		.2324	-.8001	06.05	15.58	003.2	C			C7A
		.2420	-.8035	05.60	15.80	017.2	A	B5		C7A
		.2494	-.8024	05.24	15.77	006.4	B			C7A
		.2774	-.8031	03.89	15.92	017.9	A			C7A
		.2828	-.8008	03.62	15.82	002.5	C			C7A
		.0953	-.8101	12.72	15.62	005.4	B			C7A
		.1147	-.8157	11.80	15.99	022.6	B			C7A
		.1166	-.8108	11.69	15.73	003.6	B			C7A
		.1180	-.8133	11.63	15.87	004.3	B			C7A
		.1225	-.8102	11.40	15.72	003.9	B			C7A
		.1320	-.8129	10.95	15.90	003.9	B			C7A
		.1328	-.8144	10.92	15.98	002.5	C			C7A
.1367		-.8123	10.72	15.88	003.9	B			C7A	
.1399		-.8137	10.57	15.97	013.6	A			C7A	
.1597	-.8122	09.61	15.96	004.7	B			C7A		

Special Remarks marked thus * in Main Catalog

- *1. Elliptical
- *2. Central peak
- *3. Shallow; low walls
- *4. These craters share name "Clairaut D"
- *5. Diameter obtained by extrapolating missing wall sections
- *6. 40% of wall missing
- *7. 50% of wall missing